WHAT IS CLAIMED IS:

1. In a digital signal processor (DSP), a method for motion detection in a current frame of video information, comprising:

providing a search window which defines a search area of data points of said current frame, said search window defining a pattern of search points located in said current frame;

loading a reference block into a first memory portion of said DSP;

loading at least a first frame portion of said search area into a second memory portion of said DSP, said first frame portion including at least some of said search points;

determining a first level search point including performing comparisons of said reference block with search points in said first frame portion;

selectively loading a second frame portion of said search area into a third memory portion of said DSP based on a location of said first level search point; and

performing a local search relative to said first level search point.

2. The method of claim 1 wherein said determining further includes performing a comparison of said reference block with at least one search point that is stored in a memory that is external to said DSP.

3. The method of claim 1 wherein said local search includes providing a second search window centered about said first level search point, said second search window defining a refined search area contained within said search area of said current frame.

4. The method of claim 3 wherein said loading a second frame portion is performed if said refined search area includes data points not contained in said first frame portion.

5. The method of claim 1 wherein the first, second, and third memory portions are portions of an on-chip memory of said DSP.

6. The method of claim 1 wherein said third memory portion is contained within said second memory portion.

7. The method of claim 1 wherein said performing comparisons includes producing motion vectors.

8. The method of claim 7 wherein said first level search point is determined based on said motion vectors.

9. The method of claim 1 wherein said performing comparisons include calculating sum of absolute difference values.

10. The method of claim 1 wherein the entirety of said search area is loaded into said second memory portion.

11. A method for video compression by comparing a first frame of video information against a second frame of video information, comprising:

identifying a reference frame contained in said first frame;

storing said second frame in a first memory;

defining a search area in said second frame, said search area comprising data points in said second frame, said search area including plural search points;

storing at least a portion of said search area into a second memory, including one or more of said search points;

comparing said reference block to search points contained in said second memory;

determining a first level search point based at least on said step of comparing;

defining a refined search area centered about said first level search point, said refined search area being contained in said search area; and

performing a local search on said refined search area.

12. The method of claim 11 wherein said performing a local search includes selectively loading data comprising said refined search area into said second memory.

13. The method of claim 12 wherein said step of selectively loading data is performed if said refined search area includes locations not contained in said first frame portion.

14. The method of claim 11 further including an additional step of comparing said reference block to search points which are contained in said first memory and which are not contained in said second memory, said determining further based on said additional step of comparing.

15. The method of claim 11 wherein said steps are performed in a digital signal processor.

16. The method of claim 15 wherein said first memory is external to said digital signal processor and said second memory is an on-chip memory contained in said digital signal processor.

17. The method of claim 11 wherein said comparing includes producing motions vectors and said first level search point is determined based on said motion vectors.

18. The method of claim 11 wherein said comparing includes calculating sum of absolute difference values.

19. The method of claim 11 wherein the entirety of said search area is stored in said second memory.

20. In a digital video image compression system, a device for estimating motion, comprising:

a processor;

a first memory coupled to said processor for storing a current frame; and

a second memory coupled to said processor, wherein said second memory stores a sequence of instructions which, when executed by said processor, cause said processor to perform steps of:

(i) accessing a search window which defines a search area in said current frame, said search window defining a pattern of search points in said current frame;

(ii) loading a reference block into a first memory portion of said DSP;

(iii) loading at least a first frame portion of said search area into a second memory portion of said DSP, said first frame portion including at least some of said search points;

(iv) determining a first level search point including performing comparisons of said reference block with search points in said first frame portion;

(v) selectively loading a second frame portion of said search area into a third memory portion of said DSP based on the location of said first level search point; and

(vi) performing a local search about said first level search point.

21. The device of claim 20 said first memory is external to said DSP.

22. The device of claim 21 said second memory is on-chip memory contained in said DSP.

23. The device of claim 20 wherein said step (iv) further includes performing a comparison of said reference block with at least one search point that is stored in said first memory.

24. The device of claim 23 said first memory is external to said DSP.

25. The device of claim 20 wherein said performing comparisons includes producing motion vectors and said first level search point is determined based on said motion vectors.